IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently amended) A wide-band dispersion controlled optical fiber, characterized in that a cut-off wavelength is substantially 1285 nm or less, dispersion values are -12 to -4 ps/nm/km in a wavelength region of substantially 1285 nm to 1330 nm and 8 to 14 ps/nm/km at substantially 1625 nm wavelength, a zero dispersion wavelength is positioned in a wavelength region below substantially 1430 nm, wherein the effective cross-section area of the optical fiber at substantially 1550 nm wavelength is less than 75 μm^2, and wherein the difference of losses between the 1550 nm wavelength and the 1625 nm wavelength is substantially 0.03 dB/km or less, wherein the wide-band dispersion controlled optical fiber includes an internal core which has a diameter d1 and a refractive index n1; an external core which encloses the internal core and has a diameter d2, the refractive index n2 of the external core gradually decreasing from n1 in the direction away from the center of the internal core; an internal clad which encloses the external core and has a diameter d3 and a refractive index n3; and an external clad which encloses the internal clad and has a refractive index n4, and wherein the diameters meet with the relationships of $0 \leq d1/d2 \leq 0.8$ and $0.1 \leq d2/d3 \leq 0.5$ and the refractive indexes meet with the relationships of $n1 > n2 \geq n3 \geq n4$, $0.0034 \leq (n1-n4)/n1 \leq 0.007$, $0 \leq (n2-n4)/n2 \leq 0.0048$, and $0 \leq (n3-n4)/n3 \leq 0.0014$.

2. (Cancelled)

3. (Cancelled)

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4. (Original) The optical fiber according to claim 1, wherein the optical fiber has a dispersion slope of substantially 0.074 $ps/nm^2/km$ or less at the zero dispersion wavelength.

5. (Original) The optical fiber according to claim 1, wherein the optical fiber has a dispersion value of -9 ps/nm/km or more at substantially 1310 nm wavelength.

6. (Original) The optical fiber according to claim 1, wherein the optical fiber has a loss of 0.25 dB/km or less at substantially 1625 nm wavelength.

7. (Original) The optical fiber according to claim 1, wherein the optical fiber has a bending loss of 0.05 dB or less at substantially 1550 nm when it is wound 100 turns around a roller with a diameter of 60 mm.

8. (Currently Amended) A wide-band dispersion controlled optical fiber, wherein a cut-off wavelength is 1285 nm or less, dispersion values are -12 to -4 ps/nm/km in a wavelength region of 1285 nm to 1330 nm and 8 to 14 ps/nm/km at 1625 nm wavelength, and the dispersion slope is 0.074 $ps/nm^2/km$ or less at zero dispersion wavelength, wherein the optical fiber includes an internal core which has a diameter d1 and a refractive index n1; an external core which encloses the internal core and has a diameter d2, the refractive index n2 of the external core gradually decreasing from n1 in the direction away from the center of the internal core; an internal clad which encloses the external core and has a diameter d3 and a refractive index n3; and an external clad which

encloses the internal clad and has diameter d4 and a refractive index n4, and wherein the diameters of the cores and clads meet with the relationships of $0 \leq d1/d2 \leq 0.8$ and $0.1 \leq d2/d3 \leq 0.5$ and the refractive indexes meet with the relationships of $n1 > n2 \geq n3 \geq n4$, $0.0034 \leq (n1\text{-}n4)/n1 \leq 0.007$, $0 \leq (n2\text{-}n4)/n2 \leq 0.0048$, and $0 \leq (n3\text{-}n4)/n3 \leq 0.0014$.

9. (Original) The optical fiber according to claim 8, wherein the zero dispersion wavelength of the optical fiber is positioned in a wavelength region of less than 1430 nm.

10. (Original) The optical fiber according to claim 8, wherein the effective cross-section area of the optical fiber is less than 75 μm^2 at 1550 nm wavelength.

11. (Original) The optical fiber according to claim 8, wherein the dispersion values are -6 ps/nm/km or less at 1310 nm and 14 ps/nm/km or less at 1625 nm wavelength.

12. (Original) The optical fiber according to claim 8, wherein the optical fiber has a bending loss of 0.05 dB or less at 1550 nm when it is wound 100 turns around a roller with a diameter of 60 mm.

13. (Canceled)

14. (Canceled)

15. (Currently Amended) A wide-band dispersion controlled optical fiber comprising:

an internal core with diameter d1 and a refractive index n1;

an external core enclosing the internal core with a diameter d2, the refractive index n2 of the external core gradually decreasing from n1 in the direction away from the center of the internal core;

an internal clad enclosing the external core with a diameter d3 and a refractive index n3; and

an external clad enclosing the internal clad with a diameter d4 and a refractive index n4, wherein the diameters of the cores and clads meet with the relationships of $0 \leq d1/d2 \leq 0.8$ and $0.1 \leq d2/d3 \leq 0.5$ and the refractive indexes meet with the relationships of $n1 > n2 \geq n3 \geq n4$, $0.0034 \leq (n1-n4)/n1 \leq 0.007$, $0 \leq (n2-n4)/n2 \leq 0.0048$, and $0 \leq (n3-n4)/n3 \leq 0.0014$, ~~wherein respective refractive indexes between the cores and the clads are tuned using respective diameters and distribution of refractive indexes to obtain~~ so that the fiber has a predetermined cut-off wavelength and predetermined negative range of dispersion values in an O-band wavelength region, a predetermined dispersion value in a positive range the C-band and L-band wavelength regions, a zero dispersion wavelength positioned in a wavelength region of less than a predetermined value, and wherein a cross-section area at a predetermined wavelength is less than a predetermined value, and wherein deviation of optical loss according to wavelength is below a predetermined value.

16. (Original) The optical fiber according to claim 15, wherein the cut-off wavelength is 1285 nm or less and the dispersion values are -12 to -4 ps/nm/km in a wavelength region of 1250 nm to 1330 nm and 8 to 14 ps/nm/km at 1625 nm wavelength.

17. (Original) The optical fiber according to claim 15, wherein the zero dispersion wavelength is positioned in a wavelength region below 1430 nm.

18. (Currently Amended) The optical fiber according to claim 15, wherein the effective cross-section area at 1550 nm wavelength is less than 75 μm^2[[,]].

19. (Original) The optical fiber according to claim 15, wherein the deviation of optical loss according to wavelength is below a predetermined value is 0.03 dB/km or less.